

IMPACTS OF SMALL HYDRO POWER STATIONS ON STREAM ECOSYSTEMS AND FISHES IN STREAMS OF THE NORTH EASTERN ANATOLIA

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Abstract

Caucasian region is the twenty five terrestrial "Ecological Region" and "under threat" rich biological diversity area in the world. South west part of Caucasus includes north east part of Turkey. This part is mostly mountainous and has many streams. In the region many small hydroelectric power plants are constructed on natural mountainous stream ecosystems. Aquatic habitats of fish have been seriously affected due to river construction works, closing of the upstream migration passages, sand removals, construction of dams and regulators. Road and other constrictions works in or near the stream cause soil erosion which shifts turbidity in stream water affecting fish species including brown trout populations. Hydroelectric stations (HES) cause some environmental and social problems in the region. Small HES constructions pollute stream water and damage natural fish stocks as well as fish from trout farms.

Key words: Hydroelectric station (HES), Ecological impacts, South West Caucasus, stream ecosystem, brown trout